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Current national military strategy relies on our ability to assemble and deploy military conventional forces. DOD and the forerunners of the Federal Emergency Management Agency (FEMA) tested our mobilization capability in the fall of 1978 in a series of mobilization exercises. Post-exercise classified evaluations reports were prepared; the need for a brief and clear unclassified report became evident several months after the exercise. This unclassified report is based on several classified assessments prepared by OSD, OJCS, the Services and other Federal Agencies. This report describes the exercises, their objectives, and how they were evaluated. It then assesses the ability of the Federal Government

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to plan for and execute a large-scale mobilization and deployment of conventional forces. The report also describes actions underway to correct or mitigate problems. This report is as comprehensive as the classified reports upon which it is based; only the classified details are lacking.

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**AN EVALUATION REPORT OF
MOBILIZATION AND DEPLOYMENT
CAPABILITY
BASED ON EXERCISES
NIFTY NUGGET-78 and REX-78**

JUNE 30, 1980

**PREPARED BY
THE OFFICE OF THE SECRETARY OF DEFENSE**

80 7 21 008

FOREWORD

Current national military strategy relies heavily on our ability to assemble and deploy military conventional forces. The Department of Defense and the forerunners of the Federal Emergency Management Agency tested our capability to perform these functions in the fall of 1978. One can fairly say that these exercises were the most ambitious tests of mobilization ever undertaken in this country and perhaps the world. Though many parts of the mobilization process worked well, the exercises revealed significant difficulties and shortfalls that have to be resolved if we are to reinforce the European theater.

The need for a brief and clear unclassified report of the mobilization exercises held in late 1978 became evident several months after the exercise, when some results of the exercises were reported out of context. This unclassified report is based on several classified assessments prepared by the Office of the Secretary of Defense, the Organization of the Joint Chiefs of Staff, the Services and other Federal agencies that participated in the exercise. We have made no attempt to limit the criticisms of our capabilities. The primary difference between this report and the other reports is the lack of classified detail. Here we summarize the lessons of the exercises and tell what is being done to correct deficiencies.

RW Komer

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Under Secretary of Defense
for Policy

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I. INTRODUCTION

History of Need for Rapid Deployment

Early in the 1960's, the United States mounted a major effort to enhance the strength and mobility of its conventional land, sea, and air forces in response to a call from President Kennedy for increased military readiness. Faced with the prospect of a growing Soviet nuclear capability, the nation realized that strong conventional forces and mobilization preparedness would become increasingly important to balanced deterrence. Supported by Congress, the Department of Defense increased active-duty combat and mobility forces, began a program to improve the structure and readiness of the reserve components, and expanded procurement programs to speed force modernization. Defense also began to develop a solid analytical base for determining and justifying the size, composition, and readiness of U.S. military forces.

Then, in 1965, the U.S. entered the war in Vietnam. While U.S. active forces grew in size to meet the needs of that war, they did so primarily at the expense of modernizing and fully equipping the reserve forces. Moreover, active force modernization and maintenance -- given high priority in the four previous years -- largely gave way to the mission of sustaining U.S. and allied forces in combat. As a result, procurement and logistics backlogs were created from which the military services -- the Army and Navy particularly -- still have not fully recovered.

During the phase-down after Vietnam, the twin pressures of inflation and the domestic competition for national resources reduced U.S. military forces below pre-Vietnam levels and, in some instances, even below the levels of 1961. The Soviets, on the other hand, have shown no signs of retarding an astonishing build up in the quality and size of their military establishment. In the last 18 years, the Soviets have added over one million people to their active duty forces, while the U.S. has nearly 600,000 fewer men and women on active duty today than in 1964.

Administrative Readiness

Examination of the United States' overall readiness posture reveals that we need to centralize management of the manifold authorities, command procedures, and information systems necessary to conduct a major mobilization and deployment effort. Virtually all Federal executive departments and agencies-- and the Congress as well--have significant tasks in the event of a mobilization. But these tasks are so complex, and the day-to-day diversions to other matters so compelling, that little had been done to define, organize, and assign the tasks, or to develop a management framework within which they could be accomplished. This situation is now exacerbated by the need to develop, equip, staff and train a rapid deployment force -- a force which far exceeds the requirements envisioned in the early 1960's. Federal civil agencies and DoD have only recently given priority to the development of detailed procedures for large-scale crisis management, mobilization, and deployment.

Exercise Results

Within this broad context, DoD and the other Federal departments and agencies undertook a series of major exercises to define mobilization and deployment problems and to suggest solutions. This report begins with a description of the exercises, their objectives, and how they were evaluated. It then assesses the ability of the Federal government to plan for and execute a large-scale mobilization and deployment of conventional forces. The report also describes the actions under way to correct or mitigate problems.

The reader is cautioned that exercise results and assessments pertaining to manpower and logistics are dependent on attrition and consumption assumptions used in the exercise and would change if the crisis or war were to be of different length or intensity. Time constraints during the exercise precluded making variations in these assumptions. Therefore, worst case assumptions were used to tax the supporting systems.

II. THE EXERCISES AND THE EVALUATION

The Department of Defense (DoD) exercise program is designed to test contingency plans, to demonstrate rapid response capabilities, and to enhance military relations with other nations by clarifying participation in mutual defense arrangements. The overall objective of the program is to ensure a high state of U.S. defense preparedness. Though mobilization and deployment are inherent to some degree in virtually every exercise, an exercise specifically to test mobilization and deployment is conducted biennially. In the fall of 1978, DoD and the Federal Preparedness Agency (FPA) ^{1/} conducted a major mobilization and deployment evaluation using three parallel and essentially simultaneous exercises.

- Exercise PETITE NUGGET 78, sponsored by the Office of the Secretary of Defense (OSD) and conducted on October 7, 1978.
- Exercise NIFTY NUGGET 78, sponsored by the Joint Chiefs of Staff (JCS) and conducted over the period October 10-30, 1978.
- Exercise REX-78, a civil readiness exercise sponsored by the FPA and conducted over the period October 10-30, 1978.

The exercises, and the evaluations of them, attempted to pinpoint suspected problems and weaknesses in the nation's plans for and capability to execute a national mobilization in conjunction with a large-scale deployment of conventional forces to meet a major attack in Europe.

Crisis Situation

The crisis situation portrayed in NIFTY NUGGET (and adopted also for PETITE NUGGET and REX-78) involved a short-warning, fast-breaking attack by the Warsaw Pact on NATO forces in Europe. While such a scenario might not be the most likely case, the penalty for being unprepared is so great that the U.S. must plan for such a possibility. In such a crisis, the U.S. would be constrained to the use of forces-in-being, and there would be little time to improve the training readiness of its reserves or to gear up its industrial base. Such a conflict would be a most demanding test of U.S. military force mobilization and deployment; also, the rapid pace and complexity of events would greatly challenge Defense management procedures and the support arrangements among DoD and other Federal agencies and among the U.S. and its allies. NIFTY NUGGET and its companion exercises were designed to simulate this challenge.

^{1/} The FPA became part of the new Federal Emergency Management Agency (FEMA) in mid-1979 and is no longer referred to as the FPA.

Exercise Objectives

PETITE NUGGET was held a few days prior to NIFTY NUGGET; this four-hour discussion allowed senior military and civilian officials to review pre-mobilization options. PETITE NUGGET objectives were:

- To develop a sense of the options available during a period of rising tension.
- To illustrate how a period of political warning might be used to increase readiness and to ameliorate a crisis.
- To give greater visibility to the need for more sophisticated mobilization planning.

NIFTY NUGGET was designed primarily to test plans, procedures, and supporting systems for the mobilization and deployment of existing forces. The simulated war-fighting portion of the exercise was subordinate to mobilization and deployment simulations. NIFTY NUGGET objectives were:

- To determine the adequacy of plans, systems, and procedures for full mobilization.
- To examine limitations and shortfalls in manpower and logistics during the initial phases of mobilization and deployment.
- To test fully the mobilization and deployment plans and procedures of the Department of Defense and other Federal departments and agencies (without actual call-up or movement of units).
- To assess the effectiveness of deployment planning.

REX-78 objectives were:

- To test Federal department and agency plans, procedures, systems, and support for military mobilization and initial deployment.
- To test the plans and procedures for the management of vital resources under mobilization and crisis conditions.
- To identify and examine long-term critical resource problems involved in sustaining a national mobilization in response to protracted conventional war.
- To evaluate Department of Defense cooperation with other Federal agencies under mobilization conditions.
- To provide senior Federal officials an opportunity to review and discuss some of the immediate and long-term problems related to mobilization.

Participation

The exercises were comprehensive -- probably the most ambitious such tests ever undertaken in peacetime. A list of participating organizations is provided in the Appendix. While not all key federal offices participated intensively, many did, and at high levels of representation. Both civilian and military executives and staffs showed an unparalleled degree of common interest and cooperation.

A control group acted as the National Security Council, President, and Congress. The group was comprised of representatives from the Office of the Secretary of Defense (OSD), the Federal Preparedness Agency (FPA), the Organization of the Joint Chiefs of Staff (OJCS), and the Department of State.

Exercise Limitations

In interpreting the exercise findings, one should note the following limitations:

- Personnel and equipment did not actually move.
- Full participation of some DoD elements was limited by the press of day-to-day business.
- Members of reserve component units participated on a limited basis during only one or two weekend drill periods.
- The most heavily supported commander in the exercise -- the Commander-in-Chief, U.S. European Command -- and his subordinate commander were able to participate on only a very limited basis.
- Although state and local government officials play prominent roles in mobilizing national resources, their participation was also minimal.
- The private sector did not participate in the exercise. Consequently, analysts could not assess the impact of civilian competition for commercial facilities, equipment, and other resources.

Introduction to Assessments

This report's emphasis on the problems we discovered is not a judgment against the mobilization and deployment system. Many plans and procedures worked well. Our intention here is to highlight problem areas. We had been aware of many problems before the exercises, but the exercises have emphasized the implications of the problems.

The following factors made detailed analysis and frank assessments much easier:

- High-level civilian and military officials, such as the Under Secretary of Defense for Policy; the Assistant Secretary for Manpower, Reserve Affairs and Logistics and his Principal Deputy; the Director, Federal Preparedness Agency, the Director of the Joint Staff and his deputies, were personally involved. Key government officials were consistently open and cooperative participants.
- NIFTY NUGGET was basically a free-play exercise. Senior officials were presented "crisis" situations that required decisions. Subsequent exercise events then reflected these decisions.
- OSD assembled an independent evaluation team led by a former Assistant Secretary of Defense. This team, which included senior retired military personnel, observed the internal functioning of OSD and the relation among DoD and other government departments and agencies. The team then prepared the evaluation report from which this public report is derived.
- The exercises were conducted within a "no-fault" environment. That is, they were concerned not with determining who was right or wrong but rather what was right or wrong; and, when weaknesses were found, what corrective action should be undertaken.

Mobilization as a System

Mobilization is a large and complex process. The mobilization system needs:

- Clearly-defined, realistic objectives, an effective management system and
- Adequate manpower and logistics systems.

The succeeding sections of this report address each of these components.

III. MANAGEMENT OF THE MOBILIZATION AND DEPLOYMENT SYSTEM

NIFTY NUGGET and PETITE NUGGET revealed weaknesses (many of them expected) in the DoD management systems used to plan and execute mobilization and deployment. Similarly, REX-78 revealed weaknesses within the Federal government systems, procedures, and agreements that must exist for dealing with national emergencies. Key observations are described below.

A. Military Operational Planning Objectives.

Clear-cut objectives and accurate data on available manpower, forces, and support are necessary for the development of military operation plans. The annual guidance, issued by the Secretary of Defense, sets forth national defense strategy and broad operational objectives, as well as specific objectives and guidance for the development of the defense program. Although, the annual guidance is the vehicle for long range planning; it is not designed to provide the detailed guidance necessary for short term military operational planning.

No Secretary of Defense document had previously established operational objectives for the plans tested in NIFTY NUGGET. Civilian leadership had not addressed a wide variety of issues which only they can resolve. To fill the gap the JCS provided guidance for the Chiefs of the Services and the commanders of the unified and specified commands for the development of operation and mobilization plans. This guidance was based on the JCS perceptions of national objectives, likely political decisions, and probable resource availability.

In order to broaden the perspective of such guidance in the future, the Secretary of Defense intends to describe for the JCS and the Services the range of instances in which military forces may be required, the objectives of the use of military force, the basic policy assumptions governing mobilization, and the availability of key resources. This Sec Def perspective will enable the JCS to develop more definitive and reliable guidance for operation plans, and it will foster an exchange between OSD and the JCS on the ability of current military forces to meet actual demands.

B. Military Operation Plans and Resource Allocation.

Even with clear cut objectives the plans would probably have been less than optimal. Early in the long-range strategic planning process, based on threat assessments, estimates of future force "requirements" for each major contingency are developed by the commanders-in-chief (CINCs) for their respective theaters. The JCS use these estimates to develop recommendations which are considered by the Service Secretaries, the Secretary of Defense, and the President in developing the annual revision to the Department's five-year defense program and in formulating the next year's budget request.

In contrast to the civilian led and military assisted long-term program and budget process, contingency plans for the deployment and employment of U.S. conventional forces to meet possible near-term emergencies are

prepared by the military under the guidance of the JCS. Too often the contingency planning process assumes that the desired levels of units, manpower, equipment and supplies will be available, without considering what levels are or can readily be made available. As a result, operations plans formulated in such a manner do not provide an accurate basis for assessing current U.S. military capabilities and are only of limited use in allocating future resources.

Two effects of the separation of the operational planning and resource allocation systems were observed in NIFTY NUGGET and PETITE NUGGET. First, operational planning assumes that force levels and supply support in theater will be available at authorized levels rather than at current manpower and logistic readiness levels; plans have frequently assumed improvements that were programmed, but might take years to accomplish. Second, program and budget development by the Services have tended to give correction of current readiness problems less emphasis.

Two major actions are under way which will strengthen the linkage between planning and budgeting. The first is the development of the Secretary of Defense planning guidance discussed in the previous section. That guidance will set clear objectives for operational planning; it should also, by defining levels of resource availability, produce a better-balanced defense program as a result of interaction between the military operational planning process and the resource allocation process. The second major action is revitalization of the mobilization planning process discussed in the next section.

C. Mobilization Plans.

NIFTY NUGGET made salient the fact that existing mobilization plans were a hodgepodge of old and unconnected Presidential emergency orders, policies, regulations, and procedures. Each covered only one part of the process; moreover, not all parts were addressed. The relationship between the parts was often inapt or even contradictory. Because mobilization demands enormous speed and coordination, because it also engages literally millions of people in a decentralized system, and because it is a process very different from everyday decision-making -- detailed, lucid, and frequently tested mobilization planning is imperative.

PETITE NUGGET and NIFTY NUGGET also tested the roles of the major DoD staffs (the Office of the Secretary of Defense, the Joint Staff, the three Service Secretariats, and the four Military Service staffs) in mobilization planning and execution. Although the mobilization responsibilities of the uniformed Service staffs and the Joint Staff were relatively clear, the corresponding roles of the Service Secretariats and the OSD staff were not well described or understood. The Service Secretariats did not have a clear understanding of their mobilization roles and were not well prepared to serve as the link between their respective uniformed Service staffs and OSD in the mobilization process. Nor was the OSD staff sufficiently knowledgeable about its liaison to the civil agencies of the Federal government. As a result of these misunderstandings, mobilization matters could not be expeditiously coordinated, and delays in obtaining resources were encountered.

To meet these needs, DoD is developing a master mobilization plan. This plan identifies mobilization tasks and responsibilities and provides guidance for the Office of the Secretary of Defense, the Organization of the Joint Chiefs of Staff, the Military Departments, and the Defense Agencies. Part of our aim is to facilitate the relationship of the parts to the whole in the event of a rapid mobilization. This plan establishes in peacetime the committees and boards that during mobilization will integrate staff activities and reduce normal bureaucratic delay in managing mobilization matters.

To make sure that mobilization coordination is addressed now within the Department of Defense, we have taken three further actions. We have established an extensive inventory of problems detected in NIFTY NUGGET. For each, we have identified a remedial action project and charged a primary action office with it. To oversee these actions and to resolve policy issues, the Secretary of Defense has established a Mobilization and Deployment Steering Group chaired by the Under Secretary of Defense for Policy. The Joint Chiefs of Staff and the Military Services have also established policy-setting and coordinating mechanisms in response to the exercise findings. Finally, but certainly not least significantly, the JCS have created a compelling catalyst, and established a useful test, by scheduling a follow-on exercise to NIFTY NUGGET for this fall.

D. The Federal Civilian Emergency Management Organization.

The exercises suggested that the civil agencies were not prepared for a NIFTY NUGGET emergency. One reason was the apparently low attention to mobilization and deployment requirements and capabilities on the part of key officials in most other Federal agencies; these offices have little knowledge of DoD's needs, organization, and mode of operation. We also discovered a lack of knowledge within DoD about the civil agencies.

Many of the coordination difficulties present within DoD are mirrored by difficulties in coordination among DoD and other Federal agencies. After NIFTY NUGGET, Executive Order 12148 created the new Federal Emergency Management Agency (FEMA), which consolidates the functions of the Federal Preparedness Agency, the Defense Civil Preparedness Agency, the Federal Disaster Assistance Administration, the Federal Insurance Administration, the National Fire Prevention and Control Administration, and others. In the event of a national emergency or attack on the US, the President may propose (to Congress) or direct (by executive order) a cabinet level Office of Defense Resources (ODR), of which FEMA will be the nucleus. The ODR would provide broad policy advice to the President, adjudicate questions of priority and resource allocation, and coordinate a national response to mobilization --in short, it will manage the civil mobilization effort.

1. Organizational Relationships and Authorities.

The exercises highlighted the formidable task faced by FEMA and, by extension, ODR in directing and coordinating emergency planning and implementation across 30 agencies. A number of serious shortcomings were revealed during NIFTY NUGGET and REX-78:

- The current emergency authorities given to DoD and the civil agencies are neither comprehensive nor balanced.
- Because many civil agency emergency programs could only be implemented following the declaration of a national emergency, certain functions vital to DoD cannot be performed prior to such a declaration, even though under the circumstances postulated by NIFTY NUGGET greater executive flexibility might be required as the contingency unfolds.
- Interagency Memoranda of Understanding covering support operations during emergencies frequently are unclear or not current, or they simply do not exist.
- The basic standby Executive Branch emergency authorities have not been kept up to date as agencies have been disbanded, created, or have experienced major changes of functional responsibilities. Moreover, parts of these authorities have lost their legal basis.
- Legislation has been passed without regard to its potential effect on mobilization. For example, the National Environmental Policy Act (and companion Clear Air and Clean Water Acts) and the Occupational Safety and Health Act contain restrictions which significantly inhibit rapid industrial mobilization. The degree to which the restrictions can be overridden in an emergency is unclear.

2. Planning.

Civil agency emergency planning had, in recent years, been concentrated in two areas: emergencies associated with national disasters and recovery from nuclear attack. Thus there had been little civil planning for a rapid mobilization/deployment contingency. Prior planning had generally been carried out with relatively little involvement by senior policy makers and had not been well coordinated among agencies. This condition was revealed by the following exercise examples:

- No Federal coordinator existed to integrate plans for reception and relocation of noncombatant evacuees. Moreover, the plans could accommodate only a small number of the evacuees projected by the NIFTY NUGGET/REX-78 scenario.
- Civil transportation planners lacked advanced planning information on DoD surge requirements. Conversely, it became apparent during the exercise that DoD planners were not sufficiently aware of military airlift requirements for support from the civil aircraft fleet.
- Industrial preparedness plans and resource allocation procedures were not readily available. For example, during the exercise there was confusion about responsibility and authority to allocate steel plating in case of competing emergency requirements.

Coordination necessary to the development of realistic plans for prompt execution of mobilization decisions was not well-defined or effective, either among civil agencies or between those agencies and DoD. Though coordinating groups might facilitate the process, the exercise indicated a lack of central authority for insuring the adequacy of mobilization planning.

Since the exercises, FEMA has been established and DoD is working with FEMA to clearly define these relationships. In May, 1979, the President directed a review of mobilization planning and formed an interagency group, under the National Security Council, that comprises the necessary Federal departments and agencies. This is the first such undertaking in more than 30 years. Stimulated in part by the outcome of NIFTY NUGGET and REX-78, the inter-agency group has already identified and resolved several mobilization jurisdictional issues among agencies. Agencies have agreed upon a common basis for Federal planning, and all agencies are developing and proposing new Federal mobilization plans. These plans will be incorporated into a Federal Master Mobilization Plan being developed by FEMA.

Other examples of progress are:

- Industrial Production. The Department of Defense is developing basic data on production surge requirements for mobilization, which will subsequently be provided to FEMA and the Departments of Labor and Commerce in support of emergency planning requirements.
- Health Care. The Public Health Service has formed a task group of government and private sector personnel to develop plans for mobilizing health resources. Among these:
 - Standby legislation to permit the drafting of doctors and other health professionals, originally developed in 1974, has been recently updated by DoD and forwarded to the Director of the Selective Service System.
 - The Department of Defense is establishing a Civilian-Military Contingency Hospital System. This system provides, by prearrangement, a significant civilian hospital augmentation of the CONUS military health care system in time of national emergency. We hope to have 30,000-50,000 emergency beds available in civilian care facilities by 1983.
- Noncombatant Evacuation Operations. The Department of Health and Human Services expects to complete its new Emergency Repatriation Plan by August 1980. This plan should enable the Department to fulfill its responsibilities for the reception in CONUS, relocation to final destination, and followup assistance to US personnel evacuated from overseas areas under emergency conditions.

E. Information Weaknesses.

As previously noted, NIFTY NUGGET and REX-78 revealed a lack of concise, up-to-date, and readily available information about the authorities available to the President and other Government executives. Other information necessary to the mobilization process was also lacking. For example:

- No comprehensive document describes all the options available for executive action. Thus, we have no vehicle for determining whether the degree of executive flexibility afforded by existing laws and regulations is adequate, and whether the system of authorities, taken as a whole, is comprehensive. The exercises suggested that, in at least some cases, legislative initiatives are needed.
- The President does not have balanced authorities to mobilize manpower. For example, he can, without declaring a national emergency, recall officer and enlisted retirees from some Services but not others.
- Requirements data for skilled labor were not understood, nor was there a clear sense of how a national mobilization would affect the labor market. For example, during the exercise the Department of Labor indicated that it could not accurately determine critical skill shortages.
- Many civil agencies had no count of how many of their employees who were also reservists would be subject to emergency military recall. In addition, civil agencies had not made plans for replacing recalled reservists. For example, the Department of Justice estimated that as many as 50% of the Immigration and Naturalization Service Border Patrol are reservists who would be called to active military duty. The Veterans Administration had no plan for replacing reservists, nor had it assessed the effect of a call-up of the reserves on its ability to deliver health care in an emergency.

Substantial progress is now being made in these areas. The DoD compendium of legal authorities is being updated. The authorities to recall retirees are under legal review. Comprehensive legislation will be proposed in late 1980 or early 1981 to revise the pertinent statutes. The Department of Labor has initiated work with the Departments of Commerce and Defense for development of specific plans for civilian workforce mobilization.

Federal departments and agencies have completed a review of key mobilization positions and reservists who hold those positions, to insure that mobilization of the Ready Reserve will not seriously impair the effective functioning of their organizations. Either reservists holding key positions are being discharged from the Ready Reserve or agency management is training emergency replacements. DoD policy is that all reservists will report when called.

IV. MANPOWER

Military and civilian personnel for mobilization must be (but in NIFTY NUGGET were not) treated as a single national resource. There are competing demands for manpower. We must therefore consider how to assign priorities among the needs of the military and civilian manpower categories (e.g., active military, reserve military, retirees, the draft pool, DoD civilians, and private sector civilians in critical defense skills). The most critical manpower problems are these:

- Selective Service. The active and reserve forces were never intended to fight without additional draftees in the event of a major national emergency. Since 1973, however, the Selective Service System (SSS) has been reduced to a planning and training organization of less than 100 full-time personnel supported by reservists. The ability of a standby SSS to process untrained manpower as part of a potential mobilization has been a source of concern. In NIFTY NUGGET, the System was assumed to be fully staffed in advance of M-Day, so as to be capable of producing inductees within days of a Presidential decision to draft. In a scenario which does not mobilize the System before M-Day, the System must be able to provide manpower to meet DoD's articulated schedule; this would require rapid Congressional approval for induction authority.
- Selected Reserve Shortfall. A NIFTY NUGGET scenario requires the activation and early deployment of many reserve units simultaneously with a request for induction authority. At current readiness levels, some selected reserve units would not be adequately manned at deployment.
- Trained Military Manpower Pool. In the post-Vietnam all-volunteer force, the combination of a smaller active force and longer enlistments has resulted in a drastically reduced pool of trained people with residual military obligations. This pool, the Individual Ready Reserve (IRR), is well below the level needed, at least by the Army, to bring active and reserve units to wartime manning levels and to provide a reservoir of trained combat replacements during the early phases of a major intense conflict with little warning. This "pre-trained" manpower is needed in the early months of mobilization and deployment, well before the military training establishment could furnish meaningful numbers of newly-trained recruits. Even if the Selective Service System were able to provide draftees as soon as the military could absorb them, we would still require the pre-trained personnel. During NIFTY NUGGET the lack of enough pre-trained personnel forced the Army to levy late-deploying units for combat-skilled personnel.

In his State of the Union Address on January 23, 1980, President Carter called for revitalization of the Selective Service System. He also announced his intention to resume registration in mid-1980 for all those born in 1960 and 1961. These decisions will substantially improve the Selective Service's

responsiveness. While the system will still be standing by, there will now be an actual registration instead of a registration contingency plan.

The Deputy Secretary of Defense and the Director of the Selective Service System have established a joint DoD/SSS Mobilization Manpower Steering Group; the plans developed by this group will improve our capability to process quickly inductees upon mobilization. This group is co-chaired by the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics) and the Director of the Selective Service. Each Military Department is represented by its Assistant Secretary (Manpower) and Deputy Chief of Staff for Personnel. Among other things, this group is developing plans for the use of Recruiting Command facilities and selected personnel in the emergency operation of the Selective Service field offices, and the group is clarifying immediate and long term operating relationships between the Military Enlistment Processing Command and the Selective Service System. Much of this planning has been completed, but much remains before the joint test of the Selective Service's plans scheduled for later this year.

Peacetime registration is not a remedy for the current shortfall in pre-trained people required to meet service needs in the first few months of combat. Both the Selected Reserve and IRR strength must also be increased. The Department of Defense has enhanced its programs to increase Selected Reserve strength in four major areas:

- Varied enlistment options are now being offered in the Selected Reserve. New accessions may enlist for four or five years in the Selected Reserve and may serve the balance of their six-year obligation in the IRR. These options augment the standard six-year enlistment.
- Individuals may now be more flexible in scheduling their initial periods of training. In the past, all new accessions had to serve a minimum of 12 consecutive weeks, during which they received both basic military training and their specialty training. Split-training is now offered, so that enlistees may take basic military training and specialty training in consecutive summers.
- Enlistment and reenlistment bonuses, as well as educational benefits, have been offered since December 1978. These incentive programs are designed to attract and retain people in Selected Reserve units.
- A full-time Army Reserve recruiting force, under the control of the Army's Recruiting Command, is now in operation. It features a centralized referral system, an automated system for accession management, and recognition of the outstanding results of individual recruiters.

As a result of these and similar programs, we expect substantial enlistment increases in the years ahead; nonetheless, we are planning major efforts to reduce our loss of trained reserve personnel. Lower loss rates will lead to increased strength even without more enlistments.

The Department of Defense is currently enhancing its programs to increase the size of the IRR and to improve its management. These initiatives are:

- All individuals who leave the Army before the end of their enlistments are being screened to insure that those with mobilization potential are transferred to the IRR.
- Each of the Services now encourages members who reach the end of their six-year service obligation to reenlist in the IRR. The Army clearly needs a reenlistment bonus. Consequently, legislation that authorizes the payment of such a bonus for the IRR has been submitted.
- Female enlistees now incur the same six-year military service obligation as their male counterparts.
- DoD no longer allows enlistees to count toward fulfillment of the six-year obligation the time after enlistment but before entering.
- The legal provision that exempted enlistees 26 years of age or over from the six-year military service obligation was eliminated in 1979. Currently, all enlistees incur a six-year obligation.
- The active forces' test of two-year active duty enlistments and the Selected Reserve's use of three-and four-year enlistments are also likely to increase the strength of the IRR. Shorter periods of time spent in the active forces or the Selected Reserve will mean longer periods in the IRR to fulfill the six-year obligation.
- As Army members transfer from the active forces to the IRR, they are matched with mobilization assignments and given orders telling them where to report upon mobilization. This will greatly speed the reporting of IRR members when they are needed.

These programs are designed to make the IRR pool more responsive to mobilization needs and to increase the pool in size for DoD as a whole from 396,000 at end-FY 1979 to 680,000 by end FY-1985. For the Army, we expect to fully eliminate the mobilization manpower shortfall (270,000 at the end of FY 1979) by the end of FY 1985.

V. LOGISTICS

The transportation system, theater combat service support ability, materiel stockpiles, and the industrial base are all interrelated. Trade-offs are possible among the elements. For example, an increase in theater stockpiles might decrease the need for transportation, at least in the early phase of a conflict. Though the NIFTY NUGGET combat operations were hypothesized, from the exercise one can still draw inferences about logistics problems with respect to other scenarios.

A. Transportation.

The military transportation system includes land, sea, and air components. Transportation planning is critical. In an emergency, all components will be competing for transportation resources. The complexity of those requirements is so great that, without established priorities and prior planning, serious delays are likely. Also, an ability to change plans in response to unanticipated developments is essential.

DoD has three transportation operating agencies (TOAs). The Military Traffic Management Command (MTMC) is responsible for managing selected military ocean terminal operations worldwide and for managing military common user air and surface movements in the continental U.S. The Military Sealift Command (MSC) operates and manages common-user ocean shipping. The Military Airlift Command (MAC) operates and manages worldwide common-user airlift resources and military aerial ports. NIFTY NUGGET illuminated transportation shortfalls in both management and resources.

The exercise revealed a need for better planning and management of traffic and transportation assets. Coordination among the three TOAs is critical because the MTMC schedule for the movement of forces and supplies to aerial and sea ports must match the MAC and MSC schedules for airplanes and ships. NIFTY NUGGET demonstrated that the procedures for coordinating operation plan and automatic data processing requirements among the TOAs were inadequate. The need for more flexibility was particularly apparent when the TOAs needed to make immediate changes in previously established movement plans. This lack of flexibility caused unacceptable delay in the movement of units and supplies and inefficient use of strategic airlift assets. The Joint Transportation Board, under the JCS, provides limited coordination, integration, and adjudication of competing demands for transportation assets, but until NIFTY NUGGET no agency had been charged with integrating the planning of the TOAs into a single traffic management system. The Joint Deployment Agency (JDA), created immediately following the exercise, has been assigned as a primary function the integration of TOA planning. The JDA is developing a Joint Deployment System to produce accurate movement plans, help decisionmakers quickly evaluate deviations from established plans, and monitor movements in progress.

NIFTY NUGGET also highlighted other problems with strategic airlift. For example, when plans for several regions had to be implemented simultaneously, aircraft had to be reallocated; collectively, these plans called for many more aircraft than could be made available.

The priority for strategic lift aircraft for European reinforcement resulted in reduced support to other regions demanding these aircraft because the NATO-Warsaw Pact conflict was not confined to the European continent. Thus, a strategic airlift shortfall was apparent, even after the Military Airlift Command was augmented by Reserve Component crews and by US commercial aircraft drawn from the Civil Reserve Air Fleet (CRAF). Further exacerbating the problem is a current shortage of spare aircraft engines and other maintenance items which are needed to maintain the MAC fleet at the high rate of usage assumed in the plans. There is also a significant shortage of the materials handling equipment required for efficient aircraft loading.

In NIFTY NUGGET, strategic airlift capacity to move men and material to overseas theaters was reduced by the unplanned need to return aeromedical evacuation equipment. A lack of adequate in-theater medical treatment forced the evacuation of many casualties who should have received all of their care there. These evacuees were accommodated by the maximum patient movement capability of strategic airlift returning from Europe. Airlift available for movement of men and materiel to Europe was reduced, because, for every three evacuation missions to CONUS, one aircraft was required to return aeromedical equipment kits to Europe. After all available kits had been used, many patients were evacuated in aircraft configured for inflight medical care but lacking galley, latrines, and airline seats.

NIFTY NUGGET revealed a difficulty in getting the planned ships to their planned outloading ports, especially during the early days of an emergency. Additional difficulties concerned hazardous cargo outloading capacities at certain U.S. seaports and the availability of shipping. To some extent these problems will decline with planned increases to prepositioned stocks and wartime relaxation of safety rules. The exercise play was not designed to test sealift plans and procedures. The Military Sealift Command has only limited assets and can count on only a small number of ships from the Ready Reserve Force during the initial days of mobilization. Other shipping assets are earmarked from the U.S. and NATO commercial fleets, but these would likely not be available in the very early stage of a short-warning, rapid mobilization situation. Moreover, specialized roll-on-roll-off ships (onto which vehicles can be driven directly from the deck and off loaded in the same manner) are not widely available in adequate numbers. Ammunition port capacities were inadequate for the amount of ammunition needed in time to accommodate current European theater requirements. (Safety waivers permitted loading at commercial facilities.)

The commercial transportation resources required to move forces and supplies to ports of embarkation were found to be generally more than adequate. However, improvement is clearly needed in the early identification of requirements and the timely release of funds for contracting commercial transportation. Additionally, railheads at some military installations were found inadequate for rapid outloading.

The need for centralized transportation planning is being met by the newly formed Joint Deployment Agency mentioned earlier. The design requirements for ADP support for that function are under development.

NIFTY NUGGET provided additional impetus to an ongoing DoD-DoT action to correct the long-range, international CRAF passenger capability shortfall in Boeing-747 equivalents. This additional capability is needed for peak troop lift as demanded by the European reinforcement plan. Since the exercise, the Department of Transportation has increased the 747-equivalent allocation to CRAF to make up the deficit. To further increase airlift, Congress has appropriated funds for modifying wide-bodied civilian passenger aircraft to permit them to transport cargo during emergencies. The FY 1981 budget request also included substantial amounts of aircraft spare parts and material handling equipment so that we can fully use our cargo aircraft.

Enhancement of the nation's ability to move men, equipment, and supplies is not limited to the CRAF program. A number of initiatives have been designed to improve airlift capability. Funds have been requested from Congress for the development of a new, outsize-capable aircraft, the C-X. Improvements to the C-141 (including aerial refueling and fuselage stretching) will produce a one-third increase in its cargo-carrying capacity. Wing modifications of the C-5A will increase its service life from 8,000 to 30,000 hours. Procurement of KC-10 aerial tankers, begun several years ago, is being accelerated.

Similarly, funds are being sought for a number of sealift initiatives. Congress is being asked to authorize 12 new maritime pre-positioning ships (MPS). In the short term, a seven-ship force of commercial-type vessels is being assembled while efforts are being made to acquire high-speed civilian ships for rapid sealift. Negotiations are being conducted with many allies to secure the necessary overflight and support arrangements. Although some of the above programs are designed to improve the capabilities and effectiveness of our rapid deployment forces, virtually all will have a positive effect on U.S. ability to move personnel and materiel to the European theater.

Programming actions and management efforts since the exercise will decrease the medical requirements for strategic airlift to the theater. The Military Airlift Command has developed a short duration surge capability, which will not require all the equipment used in normal operations and which will substantially reduce equipment repositioning. In addition, in-theater medical treatment ability is being greatly increased, which reduces the number of patients who must be evacuated. Many hospitals, especially those needed early, are being prepositioned in the theater. The air or sealift capacity otherwise required to move these assets to the theater is thereby made available for other cargo.

Initiatives taken to enhance our early sealift capability include increasing the size of the Ready Reserve Force (RRF) and the Sealift Readiness Program (SRP). The RRF is a pool of ships from the National Defense Reserve Fleet that are capable of being placed on berth within 10 days. The RRF is presently comprised of 23 ships with a total of 27 ships programmed by the end of FY 82. The SRP includes about 200 US flag dry cargo and 70 tankers available in non-mobilization situations. The availability of these ships is time-phased over a 60 day period. To permit the more rapid deployment of substantial armor/antiarmor forces, plans are being considered to build ships

of commercial design for on-board storage of equipment tailored for Marine air-ground task forces of about brigade size. These ships could be deployed overseas in peacetime, as amphibious forces are now, to increase the size of the Marine force rapidly deployable in a crisis.

Further, in a NATO emergency the largest potential augmentation of US sealift capabilities would come from other NATO countries. Some 600 highly productive European ships are in the NATO pool from which ships for US reinforcement of NATO will be selected. Negotiations with the government of the Republic of Korea are currently in progress for a similar arrangement by which Korean flag shipping will transport intratheater cargo in a Korean contingency. To further enhance our sealift capability in the near term, DoD is acquiring a seven-ship force to be pre-positioned in the Indian Ocean area during the summer of 1980, with equipment and supplies to support a 10,500-man Marine Force and munitions to support additional Air Force and Army units. Additionally, currently we are negotiating to acquire eight SL-7 container ships. These 33-knot ships, once converted to roll on/roll-off (RO/RO) configuration, would enable us to deploy heavy Army units anywhere in the world in approximately one-third less time than it takes our current snips.

B. Materiel Stockpiles.

NIFTY NUGGET emphasized the necessity of adequate, balanced stocks--particularly those prepositioned in theater. Existing shortages in prepositioned stocks required us to divert transportation assets from other mobilization requirements (like the early deployment of additional combat units) to transport replacement stocks. All Services reported significant shortages in important air and ground weapons delivery systems, armored combat vehicles, and essential spare parts.

Although shortages of pre-positioned stocks were well known by military planners prior to NIFTY NUGGET/REX-78, the exercises demonstrated those shortfalls for senior military and civilian officials in a simulated crisis situation. The result was heightened concern about the shortfalls and, until those stocks had reached their objective levels, steps to include them in the transportation plans.

C. The Industrial Base.

The ability of the industrial base to meet a surge in defense requirements was tested for only a limited number of items in REX-78 and NIFTY NUGGET. However, separate analysis indicates that industry probably cannot provide additional new equipment during the early months of a short-warning conflict.

In PETITE NUGGET, expansion of the industrial base in a period of rising tension was examined. We concluded that industry response to DoD needs was slow, and that sizeable expenditures would have to be obligated in peacetime if it were to be speeded up. A decision early in the mobilization process to expand the industrial base would also help reduce the response time.

An industrial mobilization advisory group for the Mobilization and Deployment Steering Group has been formed to look into how much peacetime investment in the industrial base is prudent, given the difficulties encountered in the exercise. To be examined are:

- Encouraging the private sector to invest more in plants and equipment that can be quickly diverted to Defense production.
- Procuring more long-lead-time components of critical equipment and munitions, and
- Producing less sophisticated equipment in larger numbers in an emergency.
- Planning for large expansions of Defense production as both a deterrent and as a means for force expansion if the world situation deteriorates.

D. Automatic Data Processing (ADP).

In their efforts to improve management, reduce manual operations, and support manpower in peacetime, the Services have become heavily dependent on ADP systems for manpower and logistics management. This dependence extends far into the theater of combat operations. While NIFTY NUGGET did not target this as an activity to be tested, the exercise did increase awareness of several potential problems:

- Computer Flexibility. Computer programs for complex manpower and logistics data processing tasks are not easily modified to accommodate changes for surge requirements or unforeseen circumstances. Such programs are currently designed for an idealized mode of operation, meeting peacetime information needs and peacetime schedules. These systems could not be easily adapted to accommodate the large demands placed on them during mobilization. Also, when completed by the Joint Deployment Agency, the Joint Deployment System will create a strong requirement for systems hardware and software which can interact. This capability constitutes a major future challenge to the effectiveness of mobilization and deployment planning and execution.
- Computer Availability. Computer system equipment is significantly lacking among the reserve components, and no war reserve stocks are authorized. The attendant problems are obvious: the reserves cannot now properly train their military personnel in the use of ADP--and when mobilized would have great difficulty integrating their management information systems with those of the active forces.

In general, the Services have greatly increased their use of ADP without fully accounting for the difficulties encountered in the transition from peace to war. The Army feels this most keenly because of the degree of its expansion during mobilization and its need to rely on automated systems for the management of wartime activities.

Specific concerns regarding computer vulnerability and availability during wartime have been investigated in a study, "European Manpower. Reserve Affairs and Logistics Automated Information System Readiness Study -- Repair Parts, Reparables, Personnel Management," to be published toward the end of the summer of 1980. The study assesses automated information system (AIS) capabilities and vulnerabilities, proposed Service initiatives to improve them, and the projected shortfalls in operational mission support through 1985.

In recognition of known AIS vulnerabilities in DoD component activities, the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics) has initiated program guidance to the Services to correct their shortfalls during the FY 82-86 period.

VI. CONCLUSIONS

The foregoing sections set forth the major problems encountered during the exercises. Most of the smaller deficiencies can be corrected unilaterally by DoD and the responsible civil agencies--some through administrative action, and some through minor reallocations of resources. In other cases, corrective action will require the support of the Administration, the Congress, and ultimately the public at large because new Executive Branch authorities and additional resources may well be needed.

Historically, the American public and the Congress have not fully appreciated the implications of mobilization. Even now, some may believe that the NIFTY NUGGET scenario of a relatively short warning prior to an intense war is not probable enough to drive the design of our conventional forces and administrative apparatus. While it is likely that a period of tension would precede such a war, the penalty for being unprepared for a surprise attack is so great that we have no choice in our planning but to assume its occurrence.

The Department of Defense and the Federal civil agencies, as a result of the lessons of NIFTY NUGGET/REX-78, now recognize the necessity for more frequent evaluation of national mobilization preparedness. To that end, among other evaluation measures, the Joint Chiefs of Staff, in conjunction with the Federal Emergency Management Agency, will periodically sponsor additional large-scale exercises like NIFTY NUGGET. One such exercise is scheduled for late 1980.

Substantial progress has been achieved in improving mobilization and deployment planning and capabilities, but much remains to be done. Many actions are under way in the Department of Defense and other Federal agencies. DoD will continue to pursue mobilization and deployment improvements.

APPENDIX

EXERCISE NIFTY NUGGET/REX-78 PARTICIPANTS

DEPARTMENT OF DEFENSE

- The Office of the Secretary of Defense
- The Organization of the Joint Chiefs of Staff
- U.S. Army
- U.S. Navy
- U.S. Air Force
- U.S. Marine Corps
- Aerospace Defense Command
- Atlantic Command
- U.S. European Command
- Military Airlift Command
- Pacific Command
- U.S. Readiness Command
- U.S. Southern Command
- Strategic Air Command
- Defense Civil Preparedness Agency
- Defense Communications Agency
- Defense Intelligence Agency
- Defense Logistics Agency
- Defense Mapping Agency
- Defense Security Assistance Agency
- National Security Agency

FEDERAL CIVIL DEPARTMENTS AND AGENCIES

- Department of Agriculture
- Department of Commerce
 - Industry and Trade Administration
 - Maritime Administration
 - National Oceanic and Atmospheric Administration
- Department of Energy
- Department of Health, Education, and Welfare
 - U.S. Public Health Service
- Department of Housing and Urban Development
- Department of Interior
- Department of Justice
- Department of Labor
- Department of Transportation
 - Federal Aviation Administration
 - United States Coast Guard
- Department of State
- Department of the Treasury
- General Services Administration
- Veterans Administration
- Central Intelligence Agency
- Environmental Protection Agency
- Federal Preparedness Agency
- Civil Service Commission

Interstate Commerce Commission
Nuclear Regulatory Commission
Federal Reserve System
National Communications System
Selective Service System
Civil Aeronautics Board
United States Postal Service
United States Secret Service